



Justice and Leadership Antecedents of Organizational Trust Effects on Attitudes, Behavior, and Community Empowerment Outcomes in Kenyan Agricultural Co-operatives

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Key Words: Organization Trust, Co-operatives, Africa, Leadership

Executive Summary

The human skill of building non-violent socially intricate communities enabled us to adapt and conquer every part of the world. When people come together, innovate, and create together, truly phenomenal results occur and changes societies and the wider world. Inasmuch, governments and donor agencies seek to measure the level of community members' involvement in those around them. A key cause for community involvement is the level at which community members feel empowered. Empowerment can be broken down into three constructs: psychological, social, and political.

New research from the United States International University of Africa in collaboration with Durham University in the UK, Global Communities in Kenya and in Washington, D.C., and USAID looks at ways to strengthen communities through co-operative organizations. In

Kenya, the Ministry of Industry, Trade and Cooperatives states that the country hosts 2,996 co-operatives where citizens come together to form legal entities that support them in some sort of specific industry. The sectors that co-operatives operate in range from bee keeping, tobacco farmers, dairy producers, coffee growers, housing co-operatives, and SACCOs, etc.

Trust stands as a critical ingredient to the success of communities, organizations, and member-based institutions. Famed researchers Roger Mayer, James Davis, and David Schoorman defined trust as the willingness to risk, not taking the risk, or acting on it. When someone decides to take a risk on another person whether in the form of getting married, being employed, or having a friend help them solve a problem, that means that the individual holds some amount of initial trust in the other person.

In terms of co-operatives, the recently conducted research shows that when members trust the co-operative, the board (called the management committee in co-operatives), and the senior managers hired by the co-operative, then the members were also more satisfied with their co-operative, more committed, and felt that they could share their opinions and be heard within the co-operative. When the members felt less trust, then the relationship between these three positive organizational outcomes were lower.

Trust also held strong direct relationships with how involved members were in their communities. When a member trusted the co-operative and its leaders, then they were more likely to feel politically empowered, socially empowered, and psychologically empowered in their local communities. The researchers hypothesized that when co-operative members trust

their leaders, then they spend less time and stress trying to watch them and make sure they do not get cheated. The members then have energy and motivation to engage in other organizational and community actions.

Further, people crave the power to make decisions about their own lives. From political democracy to estate committees to family meetings, humans prefer not to give up control and instead have a say in decisions that affect their well-being. Members within co-operatives feel the same way. Some members get shocked when their co-operatives make an announcement. They perhaps never knew any inclination that a major change was in the pipeline. Co-operative members desire to feel included, listened to, and not only incorporate their input in verdicts but actually make some or most of the decisions on their own.

Charles Manz and Henry Sims' ground-breaking research found that participative leaders differ from other types of leaders because they delegate decision authority to their employees. Participative leaders foster shared leadership development within workplace teams. The research team expected to find positive relationships when a co-operative has a participative management committee and senior managers then members would hold more favorable attitudes and behavior in the organization as well as in their communities because they would feel more empowered and included.

However, the direct effects of participative leadership only relate significantly with members' level of activity in the co-operative and perceived voice which entails whether members feel

that they can speak up and have their opinions heard by the leaders. In short, when leaders allow members or employees to make decisions, then they get involved and feel heard.

Surprisingly, participative leadership held no impact on members' satisfaction level, member commitment to the co-operative, or member involvement in their community through political, social, or psychological empowerment. So if leaders act more participatively in the organization, it only provides partial effects. But participative leadership did relate positively to members trusting their leaders more. Then, when participative leaders had members who also trust the co-operative and the leaders, the impact of allowing members to participate in decision making was even more powerful than trust alone. When the members of co-operatives trusted the organization and the leaders, then participative leadership became a powerful tool. When co-operative members did not trust their leaders, then the levels of participative leadership held no effect on most outcomes.

The research also investigated the role of organizational justice on organizational and community outcomes. Humans of all shapes, sizes, creeds, nationalities, orientations, religions, and positions yearn for fairness and equality for themselves and their families. Co-operative members also want the same justice within their organizations.

Prolific organizational behaviour researchers Jason Colquitt and Jessica Rodell delineate the social science studies over the past 35 years in the field of justice within institutions. Organizational justice takes many forms. Fairness within co-operatives can be procedural fairness in processes, fairness in how outcomes are distributed, interpersonal respect and

propriety from superiors, and informational truthfulness and justification in communications from management. Unlike in employee situations which has been studied before in Kenya, no known research has ever looked at justice and fairness in member-based organizations in East Africa.

The research found a strong statistically significant positive relationship between members' perceptions of fairness and their satisfaction as members at a 0.44 increase for every 1.00 increase in perceived fairness. The relationship is powerful and proved stronger than all other relationships including participative leadership and even trust on member satisfaction. Members clearly demand fairness in order to be optimally satisfied with their entities.

Additional statistically significant positive results included relationships between informational and interpersonal justice and higher member commitment to the co-operatives entailing sharing about the co-operative with their friends and plans to stay a member for long periods of time. Also, a significant relationship was shown between members being more active in the co-operative the more they saw fairness prevail in the institutions. Members seemed to feel that if fairness and justice did not exist, then why bother putting in effort to attend meetings, go to trainings, and serve on committees.

However, the more members felt that their co-operative exhibited fairness, there was not a statistically significant corresponding increase in their perceived voice within the institution. When an individual believes that they can speak up and share their opinions and as a result will be heard by the institution and its leaders, then researchers call that perceived voice. Fairness

did not relate to more speaking up and being heard by members possibly because members felt enough justice and therefore did not see the need to lend their voice in the organization.

Another key finding of the study uncovers that informational fairness in communications shared with members of co-operatives and the interpersonal fairness displayed by co-operative leaders towards members relates positively with their levels of psychological and social empowerment in their communities. In terms of community involvement, when a key social and economic entity in their lives, their agricultural co-operative, disseminates information fairly and they are treated fairly by their leaders, then they also feel more psychologically empowered, likely through self-esteem and self-efficacy, and more socially empowered to make more meaningful networks within their community.

However, perceptions on fairness or the lack of fairness within co-operatives surprisingly did not make members feel more directly politically empowered. Citizens who are members of co-operatives feel no more empowerment for political action within their communities if their organization is fair or not fair. An increase in political community empowerment only occurs in the study when members also trust their co-operative and its leaders. Concepts of justice and fairness as well as the enabling power of trust facilitates even the most unique aspects of modern human life: stronger communities. When leaders act fairly and justly and foster trust within organizations, whole communities can improve and benefit from increased empowerment that truly enriches our distinctively human experience.

The results hold significant implications for how the Government of Kenya and donor agencies involve with, train, and empower agricultural co-operatives.

1.0 Abstract

The problems the research seeks to understand involves the effects of organizational trust on co-operative outcomes and how to build trust in co-operatives. Published literature on organizational trust is complex with research in Africa limited making it difficult to infer transferability to the continent. This empirical study makes a significant contribution to scientific knowledge by expanding the body of literature on organizational trust with new outcomes, referents, member-based industry, and country in the research framework. The research objectives endeavor to provide practical knowledge to co-operative leaders with desirable behaviors to increase trust, increase co-operative performance, and deepen member community empowerment.

The research received facilitation assistance by Global Communities and funded by USAID. Interactional justice significantly related to trust, satisfaction, commitment, active membership, social empowerment, and psychological empowerment. Participative leadership only related significantly to trust, active membership, and voice. Trust related significantly satisfaction, commitment, voice, political empowerment, social empowerment, and psychological empowerment. The mediating role of Trust between participative leadership on outcome variables and interactional justice on outcome variables is also discussed.

This study is relevant to co-operative leaders, co-operative members, community leaders, government policy makers, and donor agencies seeking to capacity build co-operatives towards greater rural development and community empowerment as implications of the research.

Proposed Papers Post-Engagement Journal Article Publications

1. Justice and Leadership Antecedents on Organizational Trust on Attitudes, Behavior, and Community Empowerment in Kenyan Agricultural Co-operatives
2. Servant Leadership and Trustworthiness Antecedents on Kenyan Agricultural Co-operative Innovation
3. GLOBE Framework across Kenyan Cultures on Community Involvement

2.0 Introduction

Trust represents a critical component of organizational success. Researchers focus copious volumes on trust, but often organizational managers remain unaware of the robust findings that could improve entity performance. Trust research is most commonly tested in North America, Europe, and Asia thus leaving a lack of empirical studies conducted in Sub-Saharan Africa. Only two known studies have looked at organizational trust quantitatively in Sub-Saharan Africa (Heyns and Rothman, 2015; Bellows, 2018). Since North America and Europe are higher trust societies compared to Sub-Saharan Africa, the antecedents and outcomes of organizational trust could prove different than other continents (Delhey and Newton, 2005; Holm, 2005).

Rousseau, Sitkin et al., (1998: page 395) define trust as a “psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour on another”. Research shows a positive relationship between trust and organizational performance (Dirks & Ferrin, 2001; Mayer & Gavin, 2005; Colquitt & Scott, 2007; Salamon & Robinson, 2008; Tan & Lim, 2009; Heyns & Rothmann, 2015).

Trust expands the opportunity set for the coordination of work within and outside organizations. Trust is not unconditional. Three stages exist to arrive at organizational trust:

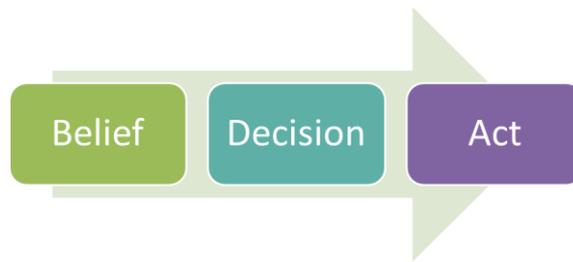


Figure 1. Organizational Trust Stages.

This research desired to examine the role of trust in co-operatives in Kenya with antecedents as well as attitude, behavior, and community involvement variables. Trust in a co-operative's leadership represents an upward view of vulnerability by co-operative members. When members think collectively of trust in those holding leadership, it therefore represents a collective authority (Dirks and Ferrin, 2002).

3.0 Overview of Conceptual Model

Based upon literature on organizational behavior, the researchers proposed that the practice of participative leadership and interactional justice in agricultural co-operatives will have effects on a variety of outcome variables relevant to co-operative members and might also have implications for the community at large. *Participative leadership* refers to a form of leadership in which co-operative members have a substantial amount of input into the specific goals to be pursued by the co-operative (Hoch, 2013) and previous research shows it relates positively with trust (Li, Bai, & Xi, 2012). *Interactional justice* is a more encompassing term referring to two more specific types of justice: interpersonal justice and informational justice. Interpersonal justice refers to the extent to which co-operative members are treated politely, with dignity and respect. Informational justice refers to the extent to which communications

about decision making in the co-operative is thorough and open (Colquitt & Rodell, 2015). Although in general one might expect that co-operative members hold relatively high levels of participative leadership and interactional justice overall, one would still expect some variability across different organizations.

The outcome variables that were studied can be grouped into two broad categories. The first one includes co-operative member attitudes and behaviors, specifically, member satisfaction, commitment to the co-operative, active participation as a member, and perceived voice. *Member satisfaction* represents the amount of overall positive affect that individual members hold toward their co-operative, adapted from Hombrados-Mandieta & Cosano-Rivas (2011). *Commitment to the co-operative* in the psychological tradition, affective organization commitment involves the degree to which an employee, or in this study a member, feels devotion to a particular entity (Lew, 2011). *Active membership* means the level of functional engagement in a membership-based organization, here co-operatives (Billiet and Cambre, 1999). *Member perceived voice* entails the perception that members can intentionally express co-operative related ideas, information, and opinions (Ruck, Welch, and Menara, 2017; Van Dyne, Ang, & Botero, 2003).

The second category is three dimensions of community involvement consisting of *political empowerment* encompassing voice in community decision-making and believing that one's vote makes a difference in the community, *social empowerment* meaning feelings of community connection and community spirit, and *psychological empowerment* involving motivation and pride in one's community (Strzelecka, Boley, & Woosnam, 2017).

The researchers anticipated that the effects of participative leadership and interactional justice were at least partially carried through trust. Casimir, Waldman, Batram, and Yang (2006) found trust played a mediating role between leadership and follower performance. Intra organizations can have three different types of referents as the organization itself, groups, or individuals (Korsgaard et al., 2002). In the first set of results reported here, this study specifically looked at *trust in the co-operative*, a variable that consisted of participant responses to reliance trust items (Gillespie, 2003) that referred to three related entities: (a) the co-operative as a whole, (b) the board of directors (called the management committee elected by co-operative members), and (c) the senior staff as three different upward referents. More specifically, the researchers expected that leaders who were more participative would generate higher trust in the co-operative, with resultingly higher levels of member attitudes and behaviors and greater community involvement, which would be consistent with antecedents of organizational trust (Chan & Mak, 2014; Dirks & Ferrin, 2002) and effects of organizational trust on desirable organizational outcomes in the literature including performance (Dirks, 2000) and organizational commitment (Iqbal & Ahmad, 2016). In the second model presented below, the researchers utilized a referent of fellow co-operative members.

Similarly, the team expected that higher levels of interactional justice, viewed by members as originating from the co-operative overall, the management committee, and the senior staff, would also be associated with greater trust in the co-operative, and higher levels of the outcomes. Thus trust in the co-operative is viewed as a critical psychological state that carries the effects of leadership and justice through to the outcomes.

The researchers also expected that there might be some additional, direct effects of leadership and justice that were not carried through trust, thus the analytical model utilized included both

direct and indirect paths from leadership and justice to the outcomes. Previous research supports direct relationships between leadership and performance (Hoch, 2013) and between organizational justice and satisfaction (Usmani & Jamal, 2013). In addition, it seems that in general, co-operatives that are higher in participative leadership are also higher in interactional justice, so the analytical model allowed these two antecedent variables to relate to each other. A conceptual diagram of this model may be seen in Figure 2 below.

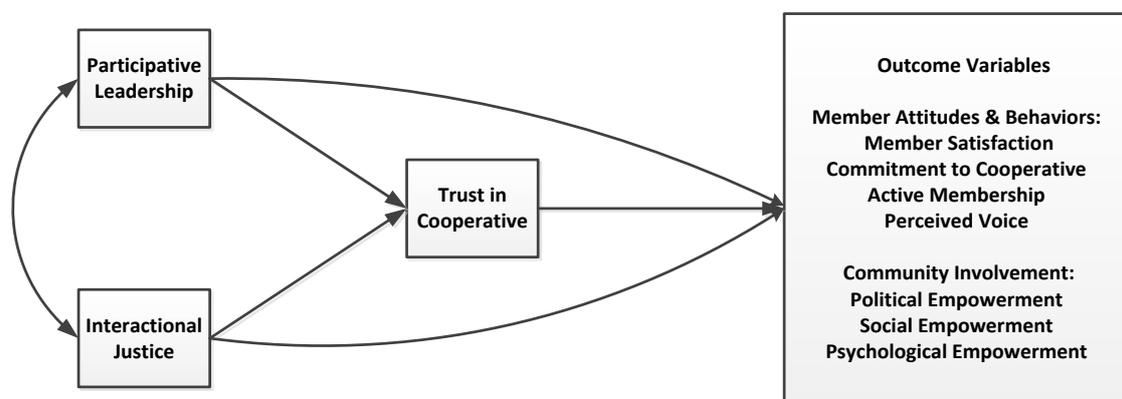


Figure 2. Conceptual model of the direct effects and indirect effects (via trust in co-operative) of participative leadership and interactional justice on outcomes.

4.0 Sample

Global Communities obtained a list of every registered co-operative in the Republic of Kenya from the Ministry of Industry, Trade and Cooperatives. The list contained 2,996 co-operatives delineated by county, sector, and name. Global Communities and the research team were interested in agricultural co-operatives only and not SACCOs, similar to the Western concept of credit unions, housing, and others types of co-operatives where the interaction between management and members were distant. Agricultural co-operatives have on average fewer members than SACCOs and usually interact directly with the management committee and senior management, unlike SACCOs and housing co-operatives. In total, there were 308 specifically designated agricultural co-operatives across Kenya. Sectors included sugar cane,

livestock, tea, coffee, horticulture, fishing, dairy, cotton, bananas, bee keeping, poultry, pyrethrum, ranching, and tobacco.

In coordination with Global Communities, the research team narrowed down a purposive sample of counties to 12 out of Kenya's 47 counties based on USAID co-operative programming priorities as shown below in Table 1 and Figure 3.

Embu	Usain-Gichu
Kitui	Kisumu
Machakos	Kakamega
Makueni	Busia
Taita-Tavetta	Murang'a
Kilifi	Kisii

Table 1. Sample Counties.

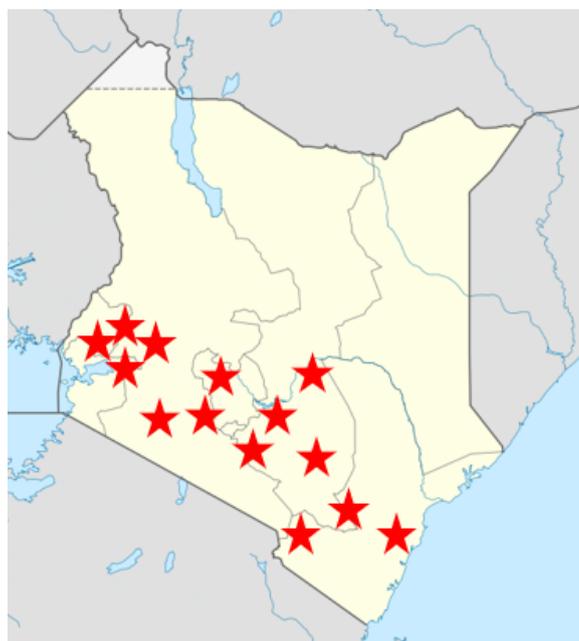


Figure 3. Sample Sites within Counties.

In selecting the specific co-operatives per county, the research team utilized the random number generator feature within Microsoft Excel. Each co-operative in the target counties was assigned a random number by the software. The random numbers and co-operatives were

copied from one Microsoft Excel sheet and pasted into another sheet by pasting only the values. Otherwise, the random numbers in Microsoft Excel change with every data sort. Then, the randomly assigned numbers per co-operative where data sorted from smallest to largest. The two smallest random numbers and the corresponding co-operative were chosen per county.

The Global Communities team then proceeded to reach out to the field officers of Ministry of Industry, Trade and Cooperatives in each of the 12 counties. The field officers then provided the contact numbers for the co-operatives or the chairperson of the Management Committee. Upon calling the contact numbers provided by the respective county officers of the Ministry of Industry, Trade and Cooperatives, in some counties, one of the top two co-operatives selected were no longer functioning. In such situations, the research team moved on to the third smallest and fourth smallest random number generated for that county and so on.

The research team met independently of the Global Communities team with the county field officer for the Ministry of Industry, Trade and Cooperatives in Kiambu County to discuss questionnaire terms, co-operative terms, proposed collection methodology, and co-operative member possible reactions. Kiambu County was not part of the sample. Adjustments to the methodology and collection instrument were made at this time.

In the end, a cross-sectional survey was conducted in Kenya in 19 agricultural co-operatives in 12 counties comprising 9 different ethnicities in the sample (n = 506) utilizing deductive quantitative methodology with structured equation modelling. The researchers disqualified 74 respondents' questionnaires for filling in less than 50% of the answers or filling in an overwhelming number of answers with the same number on the Likert scales indicating a likely lack of understanding or an indifference to the questionnaire as a whole.

4.1 Data Collection

The research team had the questionnaire translated by two separate individuals with knowledge of both Kiswahili and English. However, the team discovered early on in the pilot discussions in Kiambu County with the ministry official and attending farmers as well as in the first county surveyed, Embu, that literacy rates among co-operative members would require verbal translation and explanation. The Global Communities Kenya Team Lead provided the direct translation in 17 out of the 19 co-operatives. The high Cronbach's Alpha described below on the summated scales and the distinction in trust and leadership referent were better than expected by the research team. The excellent translation provided by the Global Communities Kenya Team Lead likely led to such strong usable results with lower than expected multicollinearity across the trustworthiness, trust, leadership, and justice referents.

4.1.1 Analytic Approach: Test of Measurement Model

Once the data were cleaned and any necessary scales scores created, researchers used a structural equation modelling software (Mplus v.8, Muthén & Muthén, 1998-2017) with a robust estimator (i.e., MLR, used to accommodate any non-normality in the indicators for the latent variables) to test latent variable models of the relationships implied by Figure 1 above.

The first step was to estimate a measurement model that specified the relationships between each latent variable in the model and its indicators. This was done to ensure that the quality of measurement was at an acceptable level. As is typical for confirmatory factor analytic (CFA) models of this general type, the measurement model allowed all latent variables to freely covary with each other and did not impose any directional relationships among them. Although the chi-square test of model fit was statistically significant, indicating some degree of model misfit,

other indices indicated an acceptable fit of the model, $\chi^2 = 763.037$, $df = 419$, $p < .0001$, $RMSEA = .040$ (90%CI .036, .045), $CFI = .952$, $SRMR = .037$.

Table 1 on the following page summarizes the factor loadings of the indicator variables on their latent factors. As can be seen, the standardized values of the factor loadings, which ranged from .492 to .972, indicated moderate to strong relationships of the indicators to their latent constructs, and all were statistically significant at $p < .001$, again supporting the adequacy of the measurement model.

4.1.2 Descriptive Statistics

The following tables represent the descriptive statistics from the study.

Factor Level Information		N
Cooperative #	1	39
	10	27
	11	14
	12	26
	13	9
	14	101
	15	26
	16	25
	18	14
	19	20
	2	17
	3	31
	4	19
	5	56
	6	33
	7	21
	8	15
	9	13

Table 2. Number of Respondents per Co-operative.

Factor Level Information			
	Value Label	N	
Gender	1	Male	358
	2	Female	125

Table 3. Gender Breakdown. Note: 23 respondents did not indicate their gender.

4.1.3 Model for Estimating Effects of Participative Leadership and Interactional Justice

After establishing that the measurement model fit sufficiently well, a second latent variable model was estimated that included all covariance and directional paths implied by Figure 2.

This model was saturated, thus the values of chi-square and the additional fit indices were

identical to those of the measurement model and therefore were equally acceptable. The advantage of this model stands that it provided estimates of the values of the proposed direct and indirect paths of participative leadership and interactional justice to the outcome variables. Table 4 below summarizes the standardized path coefficients for all direct and indirect paths in this model.

(continued on next page)

Latent Variables & their Indicators	Standardized Factor Loading
Interactional Justice	
Interpersonal justice	.882
Informational justice	.907
Participative Leadership	
PL from Co-operative	.948
PL from Management Committee	.972
PL from Senior Staff	.915
Trust (Reliance)	
TR from Co-operative	.903
TR from Management Committee	.944
TR from Senior Staff	.929
Member Satisfaction	
Member satisfaction parcel 1 (items 1 & 2)	.805
Member satisfaction parcel 2 (items 3 & 4)	.697
Member satisfaction parcel 3 (items 5 & 6)	.818
Commitment to Co-operative ^a	
Commitment item 1	.623
Commitment item 2	.760
Commitment item 3	.550
Commitment item 6	.492
Active Participation as Member	
Active participation parcel 1 (items 1 & 2)	.754
Active participation parcel 2 (items 3 & 4)	.756
Active participation parcel 3 (items 5 & 6)	.641
Perceived Voice: Upward Communication	
Upward communication item 1	.666
Upward communication item 2	.633
Upward communication item 3	.685
Community Involvement: Political Empowerment	
Political empowerment item 1	.691
Political empowerment item 2	.741
Political empowerment item 3	.625
Political empowerment item 4	.761
Community Involvement: Social Empowerment	
Social empowerment item 1	.804
Social empowerment item 2	.799
Social empowerment item 3	.811
Community Involvement: Psychological Empowerment	
Psychological empowerment item 1	.840
Psychological empowerment item 2	.724
Psychological empowerment item 3	.754
Psychological empowerment item 4	.766

Note. $N = 506$. All factor loadings were statistically significant at $p < .001$.

^a Only positively worded items from the commitment scale were used as indicators.

Table 4: Standardized factor loadings from measurement model.

4.1.4 Variance Components by Ethnicity

	Variance
Globe Framework by Ethnicity	
Uncertainty Avoidance	1.27%
Institutional Collectivism	2.68%
Ingroup Collectivism	1.02%
Performance Orientation	2.85%
Power Distance	4.60%
Assertive	5.37%
Future Orientation	4.79%
Humane Orientation	11.22%

Table 5. Variance Components by Ethnicity.

The variance components utilized on the Globe Framework were run according to ethnicity. The research found a mix between similarity and differences in Kenyan cultures. Among the eight GLOBE Framework tested cultural dimensions, the study found that half were similar across Kenya and the other varied significantly. The four cultural aspects that Kenyans were similar across ethnicity were ingroup collectivism, uncertainty avoidance, institutional collectivism, and performance orientation.

House et al. (2004) defined *uncertainty avoidance* as the extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate the unpredictability of future events. So, the degree to which a culture comes together to plan ahead for natural disasters, such as droughts, or security risks is almost the same no matter which community one originates from. No one culture within Kenya prefers to plan significantly more to avoid future uncertainty than another culture. As a whole, Kenyans desire to avoid uncertainty much less than the citizens of the Netherlands, China, and Japan, as examples.

Ingroup collectivism is the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families. Kenyans were uniformly more proud and loyal to their

families than other more individualistic nations. This theme ran almost evenly across each ethnicity surveyed. *Institutional collectivism* stands as the degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action. In Kenya, no matter which ethnicity one originates from, one tends to demand or push for collective distribution of resources at the local level.

Finally, *performance orientation* reflects the extent to which a community encourages and rewards innovation, high standards, excellence, and performance improvement. All Kenyan ethnicities on average tend to encourage lower innovation and performance than other cultures in America or Germany as examples. Kenyans do seem to tolerate mediocrity more as a cultural trend. In each of these before mentioned four cultural aspects, less than 3% of the variance in responses were due to ethnicity, thus representing minimal differences across ethnicities as shown in Table 5 above.

House et al. (2004) define *power distance* as the extent to which a community accepts and endorses authority, power differences, and status privileges. Societies with high power distance are the least likely to challenge the authority of their leaders. Power distance stood as the fourth greatest difference between Kenyans with 4.60% of the variance due to ethnicity. The Kenyan community that scored the lowest on power distance meaning that they believe that power should be shared equally amongst all in society and that leaders should be questioned when disagreements arise are the Mijikenda. The next least tolerant of power distance are the Embu followed by the Luo communities. The population with the highest perception that their society holds the greatest power distance are the Luhya followed by the Kalenjin. These two communities are the least likely of the nine groups surveyed to challenge their leaders and hold them to account.

Future orientation represents the degree to which a society encourages and rewards future-oriented behaviors such as planning and delaying gratification with 4.79% of the variance due to ethnicity. The community that feels like it makes the most plans for the future are the Kalenjin followed by the Embu and then Kikuyu communities. The populations that plan the least for the future and focus on solving current problems first are the Taita followed by the Mijikenda then the Luo.

Assertiveness endures as the degree to which a society feels that individuals are assertive, confrontational, and aggressive in their relationships with other people. Assertiveness comprised the second highest difference among Kenyan ethnic groups with 5.37% of the variance due to ethnicity. Many stereotypes swirl around certain communities existing as more or less assertive than others. Some commentators accuse the Luo community of being the most assertive in Kenya and the Taita as the least assertive. However, the Luo are similar to the Kikuyu population in that they both actually perceive their societies as equally low in assertiveness. Contrary to stereotypes, the Luhya community feel that their population are the most assertive among the nine cultures surveyed followed by the Kalenjin then the Embu then Kamba then Kisii. The lowest assertiveness perceptions about their society came from the Mijikenda.

Humane orientation entails the degree to which a society encourages and rewards individuals for being fair, altruistic, friendly, generous, caring, and kind to others. It represents the greatest difference between Kenyan ethnic groups with a large 11.22% of the variance due to ethnicity. Simply put, there are significant differences between Kenyan cultures in how humanely they feel that the society around them is concerned for and sensitive to other people. The group that

feels that society exists as the most humane are the Kalenjin with a very high average of 6.18 on a 7-point scale. The second highest humane perceptions are found in the Mijikenda followed by the Kikuyu and Embu tied for third highest. The community that feels that society subsides as the least humane are the Luhya with a 3.51 average on the same scale, over 1.0 lower than any other group. The results of the averages may be seen in Table 6 below.

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Variances:	Uncertainty Avoidar 1.27%	InstColl 2.68%	InGroup Collectivism 1.02%	Performance Orient 2.85%	Power Distance 4.60%	Assertive 5.37%	Future Orientati on 4.79%	Humane Orientation 11.22%
Embu	5.098214286 5.107143 5.089286	4.957954545 4.625 5.290909	5.482142857 5.410714 5.553571	5.294642857 5.857143 4.732143	3.452861953 3.090909 3.814815	4.427272727 3.709091 5.145455	5.672727273 6.036364 5.309091	5.663636364 5.6 5.727273
Kalenjin	5.158536585	5.292682927	6.426829268	6.548780488	4.5375	5.056402439	6.085365854	6.182926829
	4.341463 5.97561	4.487805 6.097561	6.243902 6.609756	6.487805 6.609756	4.35 4.725	4.625 5.487805	6 6.170732	6.195122 6.170732
Kamba	4.603586696 4.410072 4.797101	4.976656315 4.721429 5.231884	5.627854238 5.543478 5.71223	5.301089563 5.899281 4.702899	3.67826087 3.456522 3.9	4.316546763 3.827338 4.805755	5.354393628 5.478571 5.230216	5.035288557 4.905109 5.165468
Kikuyu	4.751136364 4.375 5.127273	4.835851648 4.017857 5.653846	5.512457912 5.37037 5.654545	5.339285714 5.785714 4.892857	3.717171717 3.545455 3.888889	3.808048433 3.634615 3.981481	5.674957118 5.727273 5.622642	5.663636364 5.618182 5.709091
Kisii	4.953809524 4.547619 5.36	4.503032258 4.248 4.758065	5.824666667 5.816 5.833333	5.6 6.072 5.128	3.94892291 3.53719 4.360656	4.288617886 3.902439 4.674797	5.452 5.408 5.496	5.196258065 5.328 5.064516
Luhya	4.486263736 4.615385 4.357143	4.25 4.714286 3.785714	5.403846154 5.307692 5.5	5.285714286 6 4.571429	5.076923077 4.538462 5.615385	5.321428571 5.142857 5.5	4.821428571 5.357143 4.285714	3.510989011 3.714286 3.307692
Luo	4.25 3.5 5	4.229166667 3.833333 4.625	5.047101449 4.833333 5.26087	5.070652174 5.75 4.391304	3.625 3.125 4.125	3.770833333 2.5 5.041667	4.780797101 5.083333 4.478261	4.520833333 4.208333 4.833333
Mijikend	4.5 4.444444 4.555556	4.55555556 4.555556 4.555556	5.611111111 5.555556 5.666667	5.333333333 5.444444 5.222222	2.6875 1.875 3.5	3.444444444 1.888889 5	4.777777778 5.111111 4.444444	5.722222222 5.777778 5.666667
Taita	4.131578947 4.368421 3.894737	4.157894737 4.315789 4	5.684210526 5.947368 5.421053	5.847953216 6.222222 5.473684	3.736842105 3.157895 4.315789	3.973684211 3.736842 4.210526	4.657894737 4.789474 4.526316	4.673976608 4.736842 4.611111

Table 6. Averages per Ethnicity on Globe Framework Dimensions.

Notes: (1) the **YELLOW** indicates the highest average per ethnicity shown while the **ORANGE** represent the lowest average per ethnicity shown.

(2) the top number in each rectangular box above represents the average for the two questions in each scale. The two question averages are shown on the bottom of each rectangular box.

4.1.5 Variance Components by Co-operative

The study also examined the variance by co-operative to ascertain if differences did exist between co-operatives showing whether co-operative perceptions, attitudes, intentions, and behaviors are similar or divergent as shown in Table 7 below.

Trustworthiness and Trust by Cooperative	
Ability - Coop	20.98%
Ability - TM	13.71%
Ability - SM	15.16%
Ability - Members	16.57%
Benevolence - Coop	6.65%
Benevolence - TM	8.46%
Benevolence - SM	10.14%
Benevolence - Members	4.50%
Integrity - Coop	12.50%
Integrity - TM	9.75%
Integrity - SM	11.83%
Integrity - Members	8.95%
Reliance - Coop	14.41%
Reliance - TM	17.31%
Reliance - SM	15.36%
Reliance - Members	20.05%
Leadership Variables by Cooperative	
Servant Leadership - Give Back - Coop	15.34%
Servant Leadership - Give Back - TM	14.17%
Servant Leadership - Give Back - SM	13.40%
Servant Leadership - Subs First - Coop	9.51%
Servant Leadership - Subs First - TM	9.10%
Servant Leadership - Subs First - SM	11.70%
Servant Leadership - Be Ethical - Coop	18.05%
Servant Leadership - Be Ethical - TM	17.26%
Servant Leadership - Be Ethical - SM	15.41%
Participatory Leadership - Coop	7.76%
Participatory Leadership - TM	9.17%
Participatory Leadership - SM	8.71%
Transformational Leadership - Coop	10.54%
Transformational Leadership - TM	8.90%
Transformational Leadership - SM	12.23%

Table 7. Variance Components by Co-operative.

In looking at organizational trust, represented by the reliance variable from Gillespie (2003), the data shows wide variability in responses by co-operative. The greatest variance due to co-operative is seen in the reliance intention among co-operative members as the referent at 20.05% of the variance due to co-operative. The next largest variance due to co-operative is through the management committee (top management) referent (17.31%), followed by the senior management referent (15.36%), and finally the co-operative referent with a still sizable variance due to co-operative (14.41%).

Antecedents of organizational trust, here trustworthiness, comprised of ability, benevolence, and integrity also showed wide variance in perceptions by co-operative. Ability perceptions across referents see the greatest variance due to co-operative, followed by integrity, and finally benevolence. Inasmuch, benevolence perceptions of the co-operative, management committee, senior managers, and fellow members were the most similar in all co-operatives while perceptions about the ability of the referents were the most diverse.

Among the leadership summated scales utilized by the research team, participatory leadership showed the greatest similarity across all co-operatives while the servant leadership construct of being ethical displayed the highest variance due to co-operative. The research team utilized participatory leadership in the conceptual model shown below because it conceptually made more sense in a membership-based organization that should, in theory, involve their members in decision making as compared to leaders with employees in companies. The participative leadership variance due to co-operative stands at 9.17% for the management committee referent, 8.71% for the senior manager referent, and 7.76% for the co-operative organizational referent.

All Summated Variables by Gender	Variance
Participative Leadership	0.00%
Interactional Justice	0.00%
Organizational Trust	0.86%
Member Satisfaction	0.00%
Co-operative Commitment	0.00%
Active Membership	0.00%
Perceived Voice	0.00%
Political Empowerment	0.00%
Social Empowerment	0.00%
Psychological Empowerment	0.00%

Table 8. Variance Components per Variable by Gender.

The researchers did not predict any differences of perceptions, attitudes, intentions, or behaviors on account of gender. The variance component per variable above in Table 8 showed no difference in variance per gender. Only organizational trust showed a slight 0.86% variance due to ethnicity, but the amount remains minimal. So, women did not hold different perceptions, attitudes, intentions, or behaviors than did men throughout the study.

(continued on next page)

4.1.6 Correlations Matrices

The researchers also analyzed correlations matrices to assess the strength of similarity in movement and direction between two variables. In organizational trust research, social scientists are often concerned with any multicollinearity that may exist between referent and between antecedents. As seen below in Table 10, trustworthiness constructs of ability, benevolence, and integrity all correlate positively and significantly at the < 0.01 level. Colors have been added for readers to better see the correlations within constructs of different referents.

Correlations

	1	2	3	4	5	6	7	8	9	10	11	12
1 Trustworthiness: Ability for Coop scale score												
2 Trustworthiness: Ability for Management Committee scale score	.795**											
3 Trustworthiness: Ability for SM scale score	.801**	.793**										
4 Trustworthiness: Ability for Members scale score	.678**	.644**	.676**									
5 Trustworthiness: Benevolence for Coop scale score	.606**	.589**	.635**	.483**								
6 Trustworthiness: Benevolence for SM scale score	.595**	.669**	.621**	.502**	.757**							
7 Trustworthiness: Benevolence for Members scale score	.584**	.613**	.669**	.471**	.762**	.790**						
8 Trustworthiness: Integrity for Coop scale score	.524**	.521**	.558**	.586**	.696**	.686**	.680**					
9 Trustworthiness: Integrity for Management Committee scale score	.711**	.683**	.731**	.538**	.703**	.703**	.664**	.637**				
10 Trustworthiness: Integrity for SM scale score	.687**	.728**	.682**	.538**	.649**	.784**	.686**	.597**	.854**			
11 Trustworthiness: Integrity for Members scale score	.661**	.693**	.722**	.525**	.671**	.707**	.744**	.629**	.828**	.864**		
12 Trustworthiness: Integrity for Members scale score	.574**	.535**	.572**	.628**	.569**	.594**	.563**	.730**	.691**	.663**	.683**	

** Correlation is significant at the 0.01 level (2-tailed).

Table 9. *Trustworthiness Correlations.*

One may observe that member perceptions about integrity correlates most strongly with both ability and benevolence for the upward referents of the co-operative, management committee (top management), and senior managers. Integrity perceptions in co-operative members' integrity correlated lower compared to upward referents.

Trustworthiness construct ability ranged from .65 to .80 between ability in members compared to management committee and between ability in senior managers and co-operative respectively. Benevolence ranged from .69 between benevolence in members compared to management committee and .79 between benevolence for senior management and management committee. Integrity ranged from .66 between integrity for members and management committee and .86 between senior managers and management committee. Each upward referent of integrity correlated over .83 thus providing a warning of possible multicollinearity to the research team. Multicollinearity means that variables are so similar in the minds of the respondents that could really represent the same construct.

The researchers then analysed a correlations matrix shown in Table 10 below delineating the correlations between trustworthiness constructs and on organizational trust variable reliance. Reliance showed high correlations across upward referents of co-operative, management committee, and senior managers between .83 and .88 thus indicating high likelihood of multicollinearity. Therefore, the research team created a higher order factor collapsing all upward reliance referents into one variable for use in the conceptual model. Trust reliance between members and the upward referents falls between .74 and .77. Trust reliance between all four referents of co-operative, management committee, senior managers, and fellow members, were all positive and statistically significant at the < 0.01 level with trustworthiness constructs of ability, benevolence, and integrity on each referent between .37 and .62. This displays strong relationships but not multicollinearity. The research team chose to utilize only trust reliance in the first conceptual model and not trustworthiness constructs.

		Correlations															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Trustworthiness: Ability for Coop scale score																
2	Trustworthiness: Ability for Management Committee scale score	.795**															
3	Trustworthiness: Ability for SM scale score	.801**	.793**														
4	Trustworthiness: Ability for Members scale score	.678**	.644**	.676**													
5	Trustworthiness: Benevolence for Coop scale score	.606**	.589**	.635**	.483**												
6	Trustworthiness: Benevolence for Management Committee scale score	.595**	.669**	.621**	.502**	.757**											
7	Trustworthiness: Benevolence for SM scale score	.584**	.613**	.669**	.471**	.762**	.790**										
8	Trustworthiness: Benevolence for Members scale score	.524**	.521**	.558**	.586**	.696**	.686**	.680**									
9	Trustworthiness: Integrity for Coop scale score	.711**	.683**	.731**	.538**	.703**	.703**	.664**	.637**								
10	Trustworthiness: Integrity for Management Committee scale score	.687**	.728**	.682**	.538**	.649**	.784**	.686**	.597**	.854**							
11	Trustworthiness: Integrity for SM scale score	.661**	.693**	.722**	.525**	.671**	.707**	.744**	.629**	.828**	.864**						
12	Trustworthiness: Integrity for Members scale score	.574**	.535**	.572**	.628**	.569**	.594**	.563**	.730**	.691**	.663**	.683**					
13	Trust: Reliance for Coop scale score	.507**	.482**	.546**	.370**	.541**	.531**	.546**	.468**	.637**	.601**	.615**	.508**				
14	Trust: Reliance for Management Committee scale score	.454**	.514**	.501**	.351**	.504**	.543**	.532**	.426**	.560**	.634**	.602**	.460**	.849**			
15	Trust: Reliance for SM scale score	.482**	.494**	.567**	.354**	.499**	.510**	.549**	.444**	.575**	.594**	.645**	.476**	.832**	.883**		
16	Trust: Reliance for Members scale score	.379**	.394**	.404**	.412**	.401**	.375**	.376**	.474**	.442**	.426**	.449**	.566**	.739**	.757**	.769**	

** . Correlation is significant at the 0.01 level (2-tailed).

Table 10. Correlations Matrix Trustworthiness and Trust.

		Correlations														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Servant Leadership: Giving Back to Community for Coop scale score															
2	Servant Leadership: Giving Back to Community for Management Committee scale score	.924**														
3	Servant Leadership: Giving Back to Community for SM scale score	.900**	.935**													
4	Servant Leadership: Putting Subordinates First for Coop scale score	.564**	.554**	.545**												
5	Servant Leadership: Putting Subordinates First for Management Committee scale score	.567**	.602**	.587**	.858**											
6	Servant Leadership: Putting Subordinates First for SM scale score	.544**	.556**	.592**	.835**	.899**										
7	Servant Leadership: Behaving Ethically for Coop scale score	.525**	.506**	.509**	.728**	.712**	.685**									
8	Servant Leadership: Behaving Ethically for Management Committee scale score	.500**	.522**	.509**	.722**	.743**	.700**	.899**								
9	Servant Leadership: Behaving Ethically for SM scale score	.466**	.482**	.517**	.687**	.722**	.750**	.865**	.894**							
10	Participative Leadership for Coop scale score	.482**	.475**	.470**	.681**	.703**	.660**	.685**	.683**	.677**						
11	Participative Leadership for Management Committee scale score	.474**	.503**	.490**	.669**	.712**	.657**	.671**	.703**	.678**	.925**					
12	Participative Leadership for SM scale score	.447**	.472**	.500**	.669**	.696**	.706**	.656**	.685**	.730**	.858**	.889**				
13	Transformational Leadership for Coop scale score	.495**	.482**	.485**	.753**	.737**	.705**	.752**	.734**	.716**	.790**	.766**	.753**			
14	Transformational Leadership for Management Committee scale score	.464**	.483**	.474**	.720**	.763**	.706**	.723**	.747**	.720**	.789**	.782**	.770**	.909**		
15	Transformational Leadership for SM scale score	.461**	.487**	.504**	.711**	.750**	.755**	.704**	.733**	.780**	.763**	.755**	.833**	.890**	.922**	

** Correlation is significant at the 0.01 level (2-tailed).

Table 11. Correlation Matrix of Leadership Variables and Referents.

Table 11 shows the correlations between different leadership constructs including servant leadership constructs, participative leadership, and transformational leadership. All leadership constructs were positively correlated and statistically significant at the < 0.01 level. However, unlike

earlier trust and trustworthiness referents, leadership referents showed higher signs of multicollinearity. Each leadership construct referent correlated significantly above the 0.835. Inasmuch, the researchers collapsed the participative leadership referents into a higher order factor comprising each of the three upward referents.

Correlations					
	1	2	3	4	5
1 All Referents - Servant Leadership Giving Back					
2 All Referents - Servant Leadership Subordinates	.612**				
3 All Referents - Servant Leadership Ethical	.539**	.782**			
4 All Referents - Participative Leadership	.512**	.744**	.740**		
5 All Referents - Transformational Leadership	.511**	.794**	.789**	.834**	

** . Correlation is significant at the 0.01 level (2-tailed).

Table 12. Correlations Matrix of Leadership Variable Higher Order Factors.

Table 12 shows the correlations for each leadership construct if each construct was collapsed into higher order factors. Each leadership higher order factor correlated positively and statistically significantly ranging between 0.511 and 0.834.

		Correlations							
		1	2	3	4	5	6	7	8
1	Voice: Senior Manager Receptiveness for Coop scale score								
2	Voice: Senior Manager Receptiveness for Management Committee scale score	.897**							
3	Voice: Senior Manager Receptiveness for SM scale score	.853**	.902**						
4	Community Involvement: Political Empowerment scale score	.413**	.388**	.373**					
5	Community Involvement: Social Empowerment scale score	.443**	.424**	.413**	.657**				
6	Community Involvement: Psychological Empowerment scale score	.516**	.491**	.484**	.564**	.805**			
7	Voice: Upward Communication scale score	.424**	.405**	.381**	.435**	.479**	.498**		
8	Perceived Performance scale score	.389**	.368**	.356**	.379**	.435**	.447**	.517**	

** . Correlation is significant at the 0.01 level (2-tailed).

Table 13. Correlations Matrix of Community Empowerment and Voice.

Perceived voice displayed in Table 13 above also highly, positively, and statistically significantly correlated across all referents ranging between 0.853 and 0.902. The team therefore collapsed the referents into a higher order factor. Community involvement variables of political empowerment, social empowerment, and psychological empowerment did not show signs of multicollinearity ranging between 0.564 and 0.805 positively and statistically significant. Community involvement variables did not contain multiple referents per construct.

		Correlations							
		1	2	3	4	5	6	7	8
1	Uncertainty Avoidance scale score								
2	Institutional Collectivism scale score	.429**							
3	In-Group Collectivism scale score	.343**	.278**						
4	Performance Orientation scale score	.308**	.263**	.586**					
5	Power Distance scale score	.080	.089*	.072	.041				
6	Assertive scale score	.300**	.229**	.228**	.229**	.443**			
7	Future Orientation scale score	.339**	.296**	.391**	.420**	.019	.305**		
8	Humane Orientation scale score	.311**	.300**	.373**	.335**	-.011	.229**	.508**	

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 14. Correlations Matrix of GLOBE Framework Culture Dimensions.

Culture variables did not show any indications of multicollinearity. All culture constructs related positively and significantly at the < .001 level between 0.228 and 0.508 except for power distance that only exhibited correlation with institutional collectivism at 0.089 at the < .05 level and assertiveness at 0.443 at the < .001 level.

(continued on next page)

Correlations

	1	2	3	4	5	6
1 Interpersonal Justice for Coop scale score						
2 Interpersonal Justice for Management Committee scale score	.853**					
3 Interpersonal Justice for SM scale score	.845**	.860**				
4 Informational Justice for Coop scale score	.755**	.708**	.696**			
5 Informational Justice for Management Committee scale score	.752**	.770**	.738**	.919**		
6 Informational Justice for SM scale score	.713**	.701**	.764**	.869**	.905**	

** . Correlation is significant at the 0.01 level (2-tailed).

Table 15. Correlations Matrix of Organizational Justice Variables across Referents.

Interactional justice constructs of interpersonal justice and informational justice correlated positively and significantly with each other and across upward referents of the co-operative, management, and senior managers ranging between .701 for informational justice perceptions in senior managers and interpersonal justice perceptions in management committee and .919 for informational justice perceptions in management committee and informational justice perceptions in the co-operative both at the < .001 level. The researchers collapsed both the interpersonal justice construct and the informational justice construct into one higher order factor of interactional justice. Part of the new higher order factor included all three referents collapsed into one.

	Effects of Antecedent and Mediator Variables						<i>R</i> ² for Model
	Trust in Co-operative		Participative Leadership		Interactional Justice		
	<i>β</i>	<i>p</i>	<i>β</i>	<i>p</i>	<i>β</i>	<i>p</i>	
Summary of Direct Effects							
<i>Mediating Variable:</i>							
Trust in Co-operative	---	---	.39	<.001	.34	<.001	.49 , <i>p</i> < .001
<i>Outcome Variables:</i>							
Member Attitudes & Behaviors:							
Member Satisfaction	.21	.002	.16	.062	.44	<.001	.53 , <i>p</i> < .001
Commitment to Co-operative	.29	<.001	.11	.293	.25	.022	.33 , <i>p</i> < .001
Active Membership	.07	.370	.31	.001	.26	.006	.36 , <i>p</i> < .001
Perceived Voice	.24	.003	.29	.007	.19	.096	.41 , <i>p</i> < .001
Community Involvement:							
Political Empowerment	.26	<.001	.14	.175	.17	.087	.26 , <i>p</i> < .001
Social Empowerment	.21	.006	.12	.263	.27	.009	.29 , <i>p</i> < .001
Psychological Empowerment	.19	.021	.05	.595	.40	<.001	.35 , <i>p</i> < .001
Summary of Indirect Effects (via Trust)							
<i>Outcome Variables:</i>							
			<i>aβ</i>	95%CI [LL, UL]	<i>aβ</i>	95%CI [LL, UL]	
Member Attitudes & Behaviors:							
Member Satisfaction	---	---	.082	[.021, .159]	.071	[.030, .150]	
Commitment to Co-operative	---	---	.112	[.044, .205]	.096	[.043, .202]	
Active Membership	---	---	.029	[-.031, .107]	.025	[-.024, .109]	
Perceived Voice	---	---	.093	[.025, .181]	.080	[.034, .179]	
Community Involvement:							
Political Empowerment	---	---	.102	[.039, .202]	.088	[.036, .169]	
Social Empowerment	---	---	.083	[.023, .177]	.072	[.024, .158]	
Psychological Empowerment	---	---	.074	[.012, .168]	.064	[.017, .159]	

Note. *N* = 506. Participative Leadership correlates .80 with Interactional Justice. Indirect effects were tested with bias-corrected bootstrapped confidence intervals. Statistically significant results are reported in boldface font.

Table 16: Values of standardized path coefficients from structural model estimation, showing direct and indirect effects of participative leadership and interactional justice on the trust mediator and the outcome variables.

5.0 Results

5.1 Effects of Leadership and Justice on Trust in Co-operative

As can be seen in Table 2, the path coefficients from participative leadership ($\beta = .39, p < .001$) and interactional justice ($\beta = .34, p < .001$) both supported our expectations that these two variables had statistically significant, positive unique effects on members' trust in their co-operative. These two antecedent variables taken together explained almost half of the observed variance in trust in the co-operative, $R^2 = .49$, suggesting that they have non-trivial effects.

The remaining path coefficients in Table 2 indicate: (a) the extent to which trust in the co-operative relates to each of the outcome variables, (b) the extent to which participative leadership and interactional justice have effects on the outcome variables that are not mediated by trust, and (c) the extent to which participative leadership and interactional justice have effects on the outcome variables that are carried through trust.

5.2 Effects on Co-operative Member Satisfaction

Overall, the model explained over half (53%) of the variance in co-operative member satisfaction. The effect of trust in the co-operative on member satisfaction was positive, and statistically significant, $\beta = .21$. Both participative leadership and interactional justice had statistically significant indirect effects on satisfaction, carried through trust in the co-operative, with standardized effects of $\alpha\beta = .08$ and $\alpha\beta = .07$, respectively. In addition, there was a remaining statistically significant direct effect of interactional justice on satisfaction that was not mediated through trust, $\beta = .44$.

5.3 Effects on Member Commitment to the Co-operative

The model explained about a third (33%) of the total variance in member commitment to the co-operative. The effect of trust in the co-operative on commitment was positive, and statistically significant, $\beta = .29$. Both participative leadership and interactional justice had statistically significant indirect effects on member commitment, carried through trust in the co-operative, with standardized effects of $\alpha\beta = .11$ and $\alpha\beta = .05$, respectively. In addition, there was also a statistically direct effect of interactional justice on commitment that was not mediated through trust, $\beta = .25$.

5.4 Effects on Active Co-operative Membership

Overall, the model explained about a third (36%) of the variance in active co-operative membership. However, unlike the other outcomes that were studied, these effects did not appear to be carried through trust in the co-operative. In fact, trust in the co-operative did not have a statistically significant effect on active membership. Instead, both participative leadership and interactional justice had statistically significant direct effects on active membership, with standardized effects of $\beta = .31$ and $\beta = .26$, respectively.

5.5 Effects on Perceived Voice

The model explained more than a third (41%) of the total variance in perceived voice. The effect of trust in the co-operative on perceived voice was positive and statistically significant, $\beta = .24$. Both participative leadership and interactional justice had statistically significant indirect effects on member commitment, carried through trust in the co-operative, with standardized effects of $\alpha\beta = .09$ and $\alpha\beta = .08$, respectively. In addition, there was also a statistically significant direct effect of participative leadership on perceived voice that was not mediated through trust, $\beta = .29$.

5.6 Effects on Political Empowerment

The model explained about a quarter (26%) of the total variance in community involvement: political empowerment. The effect of trust in the co-operative on political empowerment was positive and statistically significant, $\beta = .26$. Both participative leadership and interactional justice had statistically significant indirect effects on political empowerment, carried through trust in the co-operative, with standardized effects of $\alpha\beta = .10$ and $\alpha\beta = .09$, respectively. There were no statistically significant remaining direct effects of either participative leadership or interactional justice on political empowerment.

5.7 Effects on Social Empowerment

The model explained somewhat more than a quarter (29%) of the total variance in community involvement: social empowerment. The effect of trust in the co-operative on social empowerment was positive and statistically significant, $\beta = .21$. Both participative leadership and interactional justice had statistically significant indirect effects on social empowerment, carried through trust in the co-operative, with standardized effects of $\alpha\beta = .08$ and $\alpha\beta = .07$, respectively. There also was a statistically significant direct effect of interactional justice on social empowerment, $\beta = .27$.

5.8 Effects on Psychological Empowerment

The model explained slightly more than a third (35%) of the total variance in community involvement: psychological empowerment. The effect of trust in the co-operative on psychological empowerment was positive and statistically significant, $\beta = .19$. Both participative leadership and interactional justice had statistically significant indirect effects on psychological empowerment, carried through trust in the co-operative, with standardized

effects of $\alpha\beta = .07$ and $\alpha\beta = .06$, respectively. There also was a statistically significant direct effect of interactional justice on psychological empowerment, $\beta = .40$.

5.9 Follow-up Model: Trust in Co-operative Members

A second trust model was estimated that was very similar to the first, except that the mediating variable of trust in the co-operative was placed with a parallel measure that specifically reflects trust in the (non-leadership) fellow co-operative members. In this model, the organizational factors of participative leadership and interactional justice did have statistically significant, positive effects on trust in members, $\beta = .28$ and $\beta = .33$, respectively.

The model accounted for a practically meaningful amount of variance in the four-member attitude and behaviour outcomes, specifically: (a) member satisfaction, 52%; (b) commitment to co-operative, 29%, (c) active membership, 36%; and (d) perceived voice, 39%. However, in contrast to what was seen in the prior model, trust in members was not a statistically significant carrier of the leadership and justice effects – these effects were all direct.

The model also accounted for a practically meaningful amount of variance in the three community involvement dimensions, specifically: (a) political empowerment, 27%; (b) social empowerment, 30%; and psychological empowerment, 35%. And for this set of variables, trust in members did significantly relate to each of these three outcomes, β 's = .25, .21, and .18, respectively. The tests of the indirect effects, however, were only statistically significant for the effect of justice on political empowerment via trust in members, $\alpha\beta = .08$.

5.10 Model Results

5.10.1 Trust in Co-operative Model Results

Overall, the model explained a meaningful amount of variance in all seven outcome variables, with the proportion of variance explained ranging from 26% to 53%. Six out of seven of the outcome variables (member satisfaction, commitment to co-operative, perceived voice, and political, social and psychological empowerment) were positively and statistically significantly related to trust in the co-operative. And, the same six of these outcomes had statistically significant indirect effects of both participative leadership and interactional justice that were carried through trust in the co-operative. Some of these outcomes also showed additional direct effects of participative leadership (i.e., perceived voice) and interactional justice (i.e., satisfaction, commitment, social empowerment and psychological empowerment). Effect sizes ranged from small to moderate, which is not surprising as there are likely many other factors that also affect these outcomes.

The exception to the above pattern of results was for active participation as a member. This outcome did not significantly relate to trust in the co-operative, nor did it show any indirect effects of participative leadership and interactional justice. Instead, for active membership, the effects of leadership and justice were direct.

These results suggest that both participative leadership and interactional justice play unique roles in influencing both member attitudes and behaviors and their perceptions of community involvement. Trust in the co-operative appears to be an important psychological mechanism that accounts for a relatively large proportion of the effects of leadership and justice on six of the seven outcomes, but does not explain the observed effects of leadership and justice on active membership.

5.10.2 Trust in Co-operative Model Results

A comparison of the results of the two models suggests that it is trust in the co-operative and its governing structure that is particularly important to carrying the positive effects of leadership and interactional justice on outcomes that include both member attitudes and behaviors and the broader outcome of community involvement as reflected in political, social and psychological empowerment.

6.0 Limitations

The researchers have not yet performed a multilevel analysis on the data to determine the extent to which these effects replicate at the co-operative level, compared to the level of the individual respondent. That is an important next step to be followed. Also additional alternative leadership style measures were collected and, which when analysed, will help to understand whether it is participative leadership in particular that is relevant to these members' outcomes. Finally, because the data are collected cross-sectionally at a single point in time, one cannot be certain in making causal conclusions. A longitudinal data collection could be quite helpful to addressing whether effects are truly causal in nature. In addition, a more fine-grained approach which supplemented the survey data collection with some qualitative observations could be helpful in gaining a richer understanding of the forms and whys of the relationships that were observed. However, the team believes that the data provide good preliminary evidence of the importance of leadership and justice considerations and the amplifying power of trust in co-operative settings.

There were also limitations to the culture dimensions portion of the study whereby researchers cannot make sweeping generalizations as the data only represented the summated responses of the 506 individuals that were surveyed. The surveys were not done in every county. Therefore, the intra-culture variability within communities was not captured. Future expanded research should include multiple counties, various sub-tribes, and incorporate samples from every community in Kenya instead of only the nine featured in this study.

(continued on next page)

7.0 Future Research on Data Set

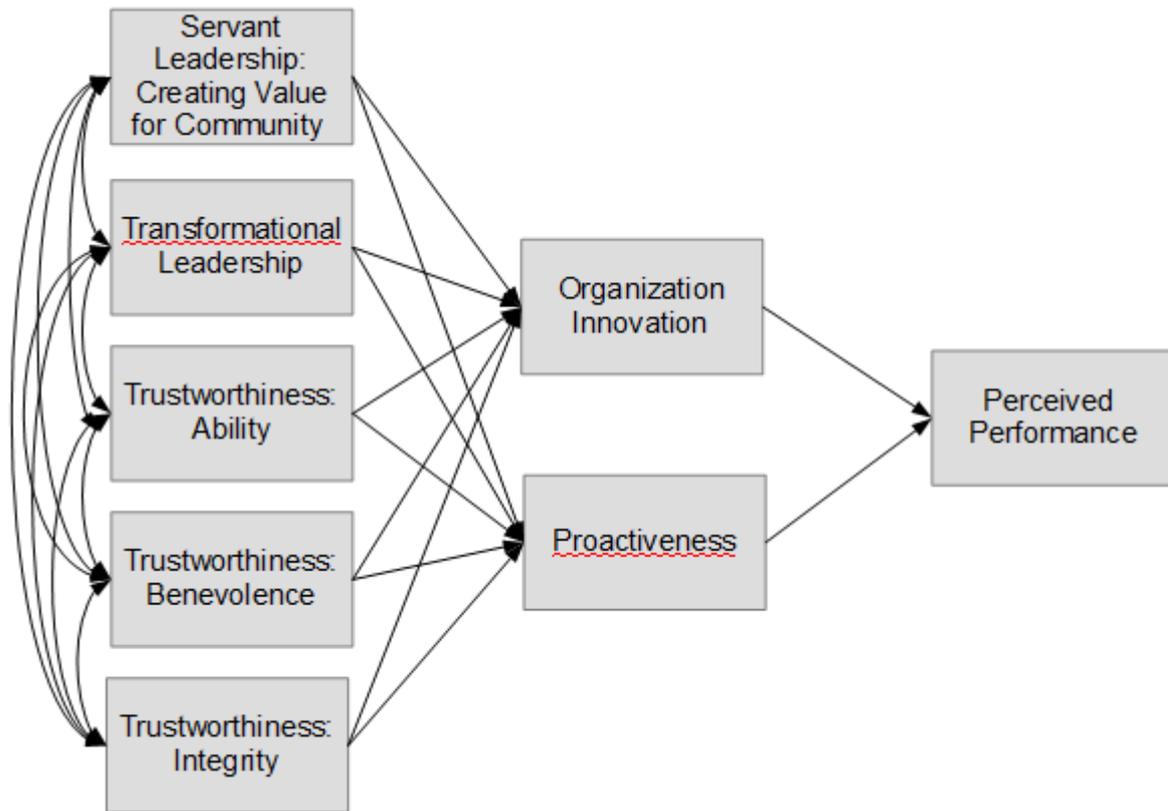


Figure 3. Second Conceptual Model for a Second Journal Article.

Additional conceptual models with data collected during the study are shown in Figures 3 and 4. The conceptual model in Table 3 details the expected relationships between servant leadership constructs, transformational leadership, and trustworthiness constructs of ability, benevolence, and integrity on organization innovation and proactiveness mediating the relationship with perceived co-operative performance.

The United States International University of Africa has approved and is implementing a second round of data collection from internal funds (179,000 Kenyan Shillings) on the conceptual framework in Figure 4 below.

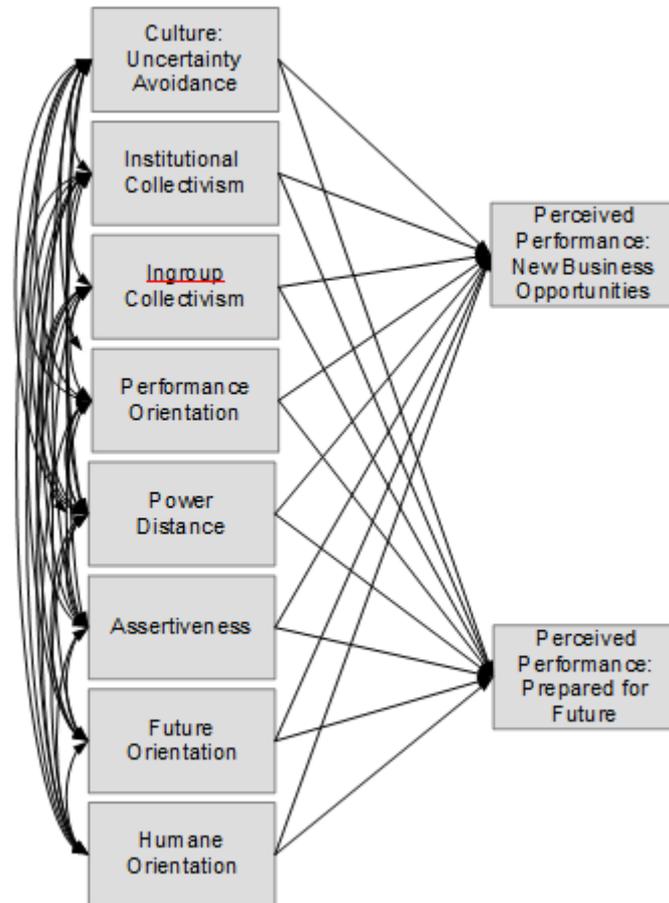


Figure 4. Third Conceptual Model for a Second Journal Article.

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